Cowlitz Indian Tribe

January 28, 2016

Mr. Derek Schruhl
USEPA
Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Re: Cowlitz Resort Casino – Class V Injection Well, Rule Authorization

Dear Mr. Schruhl:

It is the Cowlitz Tribe's understanding that EPA needs additional time to review the Tribe's Class V well inventory, request for rule authorization, and supporting information prior to providing a response. The Cowlitz Tribe would like to ensure that EPA has all of the most current and relevant information during that period of review. Our Consulting firm (Parametrix) has provided the following facts for EPA's consideration during your review period:

- **Design Capacity** – The initial phase of the water reclamation plant will be designed with a capacity of 195,000 gallons per day maximum month flow. The plant can be expanded to 390,000 gallons per day in the future.
- **Actual Wastewater Flow** – The annual average flow from the initial Casino Development is estimated to range between 70,000 and 100,000 gallons per day (refer to Wastewater Flow Calculations Using Pocono Downs from Appendix C of the Feasibility Study). The estimated actual annual average flow is anticipated to be far less than the designed capacity which allows for additional reliability and redundancy (over and above equipment redundancies outlined below).
- **Redundancy and Reliability** – The water reclamation plant will include equipment redundancy consistent with the Washington State Department of Ecology, Criteria for Sewage Works Design. All biological treatment unit processes shall be provided with alarms and multiple biological treatment units capable of producing oxidized wastewater with one unit not in operation. The plant power supply shall be provided with alarms and standby power (650 KW auto-start generator). All filtration unit processes shall be provided with alarms and multiple filter units capable of treating the entire flow with one unit not in operation. Disinfection will be provided through ultraviolet (UV) disinfection (two units in one train) and a redundant chlorination system (which equipment meets redundancy standards). Screening and pumping equipment shall be provided with alarms and multiple units capable of screening or pumping the entire design flow with one unit not in operation. Injections wells will be constructed with a minimum of 50 percent redundancy (two additional wells over design capacity). In addition to equipment redundancy, the plant will be equipped with 180,000 gallons of raw sewage storage and approximately 150,000 gallons of reclaimed water storage.

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- **Comparison to a Residential On-Site Wastewater System** – Because the Cowlitz Tribe has opted to employ an advanced treatment system (rather than a low-tech system allowed under the UIC Program) it has far less impact on the environment than what is typically from single-family residences. By comparison, the initial Casino Development (70,000 to 100,000 gallons per day) using the advanced treatment plant will:
    - Reduce the biological waste concentrations (biochemical oxygen demand [BOD]) to 1 percent to 2 percent of the concentrations coming from a septic tank (160 mg/l). By comparison, the MBR water reclamation plant at the City of Shelton, Washington, (similar process) produces reclaimed water with BOD concentrations of approximately 1 mg/l. The initial Casino Development is similar to having one single-family home (on a septic tank and drainfield) per 75 acres of land or two homes on the entire Cowlitz Reservation (152 acres).
    - Reduce the total nitrogen concentration to 6 percent to 12 percent of the concentrations coming from a septic tank (55 mg/l). By example, the MBR water reclamation plant at the City of Shelton, Washington, produces reclaimed water with total nitrogen concentrations of approximately 3 mg/l. The initial Casino Development is similar to having one single-family home (on a septic tank and drainfield) per 10 acres of land or 15 homes on the entire Cowlitz Reservation.
- **On-Site Controls and Monitoring** – The Cowlitz system employs (24 hours/7 days per week) continuous monitoring of the water reclamation plant performance (through a sophisticated controls and reporting system), and overall performance of the system will be operated and monitored by licensed operations staff with overview by EPA through the UIC program.

I hope that the additional information is useful for you and EPA staffs as you conclude your review of the Cowlitz Tribe Class V well inventory and request for Rule Authorization. If you have any further questions or comments, please do not hesitate to contract the Cowlitz Tribe.

Best Regards

William Iyall

Chairman William Iyall P.E.,
Cowlitz Indian Tribe

cc: Steve Anderson, IHS
Peter Contreras, EPA
Michael Ollivant P.E., Parametrix

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